

ABSTRACT**Resource Allocation in CDMA Wireless Communication Systems**

- 5 A dynamic assignment of the spreading codes of a user in a CDMA system is based on multipath channel conditions of that user. The spreading codes are assigned such that multipath signal energies are coherently integrated at the antenna of the receiver to ensure that the multipath components are summed constructively and therefore that a signal gain is obtained. The method is
- 10 applicable to any CDMA system which uses spreading codes over a multipath channel. A specific algorithm for selecting the codes based on channel parameters and auto-correlation functions of the spreading codes is proposed.

Fig. 2